REMARKS

This is in full and timely response to the Final Office Action mailed on November 7, 2002. Reexamination in light of the following remarks is respectfully requested.

Claims 1-5, 7-10 and 12 are currently pending in this application, with claims 1, 10 and 12 being independent. No new matter has been added.

Telephone Interview

Appreciation is expressed to the Examiner for granting the telephone interview on June 4, 2003 with Brian K. Dutton, Reg. No. 47,255, to discuss the rejection of the claims made within the Final Office Action of November 7, 2002.

During the interview it was agreed that, subsequent to the filing of the above-identified RCE and upon request to the Examiner, an interview with the Examiner would be granted before the issuance of the next Office Action.

Accordingly, an interview with the Examiner before the issuance of the next Office Action is respectfully requested.

Specification objection

The specification has been amended in response to the specification objection made within the Final Office Action. Withdrawal of this objection is respectfully requested.

Rejection under 35 U.S.C. §103

Claims 1-4, 7-10 and 12 were rejected under **35 U.S.C. §103** as allegedly being obvious over U.S. Pat. No. 4,786,133 to Chen in view of U.S. Pat. No. 4,834,476 to Benton or U.S. Pat. No. 5,473,447 to Molteni et al. (Molteni).

This rejection is traversed at least for the following reasons.

Within the claims, the apparatus includes an object beam optical system that projects light beams passed through the plurality of images displayed on the spatial light modulation means to form a superposed image of the plurality of images, condenses the superposed image in the parallax direction, and separately projects the plurality of images in the parallax direction on the hologram recording medium.

For example, Chen, Benton and Molteni, either individually or as a whole, fail to disclose teach or suggest an object beam

optical system that condenses the superposed image in the parallax direction.

For example, figure 11 of Chen arguably teaches processed beam 90 as diverging in a parallax direction. Figures 4 and 5A of Benton fails to disclose, teach or suggest an object beam optical system that condenses the superposed image in the parallax direction. Molteni also fails to disclose, teach or suggest an object beam optical system that condenses the superposed image in the parallax direction.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Conclusion

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-

955-8753 or the undersigned attorney at the below-listed number.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Respectfully submitted,

DATE: June 5, 2003

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APPENDIX

IN THE SPECIFICATION

Please replace the paragraph beginning on Page 4, line 19, with the following new paragraph:

-- Figs. 6A, 6B and ~~6B~~ 6C are ~~a~~ partial diagrammatic views showing an optical path in the superposed projection optical system. --

IN THE CLAIMS

1. (Previously Amended) A holographic stereogram exposure apparatus for exposing three-dimensional image information on a hologram recording medium to produce a holographic stereogram, said apparatus comprising:

spatial light modulation means for separately displaying a plurality of images in a parallax direction, and

an object beam optical system that projects light beams passed through said plurality of images displayed on said spatial light modulation means to form a superposed image of said plurality of images, condenses said superposed image in said parallax direction, and separately projects said plurality of images in said parallax direction on said hologram recording medium, wherein

each of said plurality of images corresponds to a respective element hologram, and

the number of said plurality of images is less than the number of element holograms included in said holographic stereogram.

2. (Previously Amended) The holographic stereogram exposure apparatus according to claim 1 further including a reference beam optical system that projects a reference beam onto said hologram recording medium for interference with said plurality of images projected on said hologram recording medium.

3. (Previously Amended) The holographic stereogram exposure apparatus according to claim 1, wherein said object beam optical system comprises a superposed projection optical system for projecting said light beams passing through said spatial light modulation means to form said superposed image, and a beam-condensing projection optical system for condensing said superposed image to project said plurality of images onto said hologram recording medium.

4. (Previously Amended) The holographic stereogram exposure apparatus according to claim 3, wherein said spatial light modulation means is divided into a horizontal direction.

5. (Previously Amended) The holographic stereogram exposure apparatus according to claim 3, wherein said spatial light modulation means is divided into both vertical and horizontal directions.

6. (Previously Cancelled)

7. (Previously Amended) The holographic stereogram exposure apparatus according to claim 3, wherein said beam-condensing projection optical system projects said superposed image onto said hologram recording medium in a non-parallax direction.

8. (Previously Amended) The holographic stereogram exposure apparatus according to claim 3, wherein said beam-condensing projection optical system uses a first-group lens and a second-group lens to guide said superposed image to a beam-condensing cylindrical lens.

9. (Previously Amended) The holographic stereogram exposure apparatus according to claim 8, wherein said beam-condensing projection optical system is provided with a correction lens between said first-group lens and said second-group lens for correcting unevenness of the angle of field for each element hologram on said hologram recording medium.

10. (Previously Amended) A holographic stereogram exposure method of exposing three-dimensional image information onto a hologram recording medium to produce a holographic stereogram, said method comprising:

an object beam projection step for projecting light beams passed through a plurality of images separately displayed in a parallax direction to form a superposed image of said plurality of images, and condensing said superposed image to separately project said plurality of images on said hologram recording medium in said parallax direction; and

a reference beam projection step for projecting a reference beam onto said hologram recording medium for interference with said light beams projected on said hologram recording medium , wherein

each of said plurality of images corresponds to a respective element hologram, and

the number of said plurality of images is less than the number of element holograms included in said holographic stereogram.

11. (Previously Cancelled)

12. (Previously Amended) A holographic stereogram generation system for recording three-dimensional image

information on a hologram recording medium and generating a holographic stereogram, comprising:

an image generation system for generating a plurality of images in a parallax direction, including a spatial light modulation means for separately displaying said plurality of images in said parallax direction ;

an object beam optical system for projecting light beams through said plurality of images generated by said image generation system and displayed on said spatial light modulations means in the parallax direction, to form a superposed image of said plurality of images on said holographic medium, and projecting images corresponding to the number of separations on said hologram recording medium; and

a reference beam optical system for projecting a reference beam on said hologram recording medium for interference with said image projected on said hologram recording medium by said object beam optical system, wherein

each of said plurality of images corresponds to a respective element hologram, and

the number of said plurality of images is less than the number of element holograms included in said holographic stereogram.